## Plants recently established in the San Francisco bay region

Ira L. Wiggins

In the truck gardening district of the Santa Cruz Peninsula a few miles south of San Francisco, California, the representatives of the introduced flora outnumber the native plants, at least in number of specimens if not in species. Most of these aliens are weeds that add nothing to the beauty of the region and cause the farmers considerable trouble at planting and cultivating time. Not one of these farmers intentionally introduces a plant which he knows will increase the difficulty of keeping his fields clean, nor does he welcome news of such an introduction. Unfortunately the farmer seldom knows when some insignificant seedling, appearing at the edge of the compost pile or along a drive where hay from outside the state has been hauled, may be the forerunner of a troublesome crop of weeds. Thus many undesirable plant aliens become established before anyone recognizes their potentialities for harm.

But occasionally some particularly vigorous garden plant escapes and becomes established along roadsides, streams and irrigation ditches or in uncultivated fields. This sort of plant seldom becomes a serious menace to the farmer's peace of mind, and frequently adds enough to the beauty of the country side to warrant putting up with some inconvenience incurred with its presence.

A plant of each type has recently gained a foothold in the rich soil of the peninsula and both bid fair to become permanent members of our naturalized flora. Along the Skyline Boulevard, between Colma and the ocean, *Oxalis cernua* has established itself in several fields so thoroughly that the masses of yellow flowers brighten the whole hillside and attract the attention of motorists who stop to pick huge bouquets. Sometimes a Japanese florist may be seen picking the flowers to sell in his roadside booth.

*Oxalis cernua* Thunb. is a native of South Africa, but is used extensively in California as a garden ornamental. Although it escapes at a number of places throughout the state it does not seem to do as well at any of these localities as it does near Colma. It is not at all likely that it will become a bothersome

weed as the taproot is fleshy, penetrating the soil to a depth of a few inches only, and an ordinary plowing would kill most of the plants disturbed. It is lamentable that more of our introduced plants do not add to the beauty of the country instead of increasing the farmer's woes.

In Pedro Valley, a few miles south of Colma, *Mercurialis annua* L. is well established in an artichoke field thirty or forty acres in extent. The entire field is pretty well infested and the pistillate plants set an abundance of seed. It is difficult to foretell how troublesome this weed may become, but the history of other European weeds transplanted to America and the prolific seeding propensities of *Mercurialis* bode ill for the truck farmers of the district.

This weed was reported in the United States for the first time, so far as I am aware, in 1856, when Dr. Gray[1] listed it from Boston, and Charleston, South Carolina. It may have been present in other parts of the south also for in 1901 Mohr wrote of its presence in Alabama, "Mobile, ballast weed, observed for over 30 years, common about the shipping."[2] A few years later Britton and Brown gave its range as, "In waste places, Nova Scotia to Florida, Ohio and Texas."[3] It seems to have been making steady progress westward and has finally reached the Pacific Coast. That it did not reach California much earlier can probably be accounted for by recalling that the plant must depend almost entirely upon human agencies to distribute the seed.

It is to be hoped that *Mercurialis* will prove less troublesome to the farming areas of California than has the introduction of such weeds as *Lepidium draba*, *Tribulus terrestris*, *Hordeum murinum*, and *Centaurea solstitialis*.

Dudley Herbarium,
Stanford University,
California.

[1] Gray, Asa, Man Bot. 393. 1856.

[2] Mohr, Charles, Plant Life of Alabama 594. 1901.

[3] Britton, N. L. & Addison Brown, Ill. Fl. N. U. S. & Can. ed. 2. 2: 460. 1913.